Notice of Allowability	Application No.	Applicant(s)	
	10/673,838	MITCHELL ET AL.	
	Examiner	Art Unit	
	Todd Ingberg	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *9/25/2006*.

2. ☒ The allowed claim(s) is/are *1-21*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TODD INGBERG
PRIMARY EXAMINER

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

Applicant's Statement on Status

"Claims 1-21 remain in the application and have been rejected. Claims 1, 11, 12-13, and 15 have been amended. Applicant requests reconsideration of the rejections."

Formal Matters

Applicant's new drawings filed September 26, 2006 have been accepted.

The new Abstract has been accepted and placed on a separate page at the end of this action with the Examiner's Amendment.

Objection To The Claims

This objection was overcome by amendment

Applicant's Argument on Rejection under 35 U.S.C. §101

"The Office Action rejected claims 1-21 under 35 U.S.C. §101 for being directed to nonstatutory subject matter. Specifically, the Office Action appears to contend that the invention claimed lacks a practical application. The Patent Statute provides: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this
title." 35 U.S.C. § 10 1. Excluded from patent protection are laws of nature, physical phenomena and abstract ideas." Diamond v. Diehr, 450 U.S. 175, 185, 209 USPQ 1, 7 (1981). Claims 1-10 are directed to the category of patentable subject matter of processes (methods). None of the judicial exclusions from patentability apply. The Office Action finds that the claimed processes have no useful application. Applicant respectfully traverses this finding. Claims 1-10 claim methods for inserting probes in software programs. The probes provide information on the software. The useful result is that the information is used to improve performance of the computer in which the software runs. Claims 11 and 15 are respectively system and article of manufacture counterparts of claim l and provide the same useful result."

Examiner's Response

Independent Claims 1, 11 and 15 have been amended and Applicant has requested reconsideration. The arguments themselves are not persuasive. The following is the Examiner's reasons for allowance over 35 U.S.C. § 101 (tangible).

Claim 1 is presented below. The claim overcomes the rejection under 35 U.S.C. § 101 (tangible), because the ***method*** claim is drawn toward a computer implemented invention and not toward an abstract idea.

1. (Currently Amended) A method for analyzing the runtime behavior of a program given a set of one or more probes and points for inserting the probes for performing a specified inspection, the method comprising: providing a compiler with one or more semantics about each probe, the semantics selected from the group consisting of specifying the probe's context, its filter criteria,

whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness; and compiling the program with the one or more probes and the semantics.

Claim 11 is presented below. The claim overcomes the rejection under 35 U.S.C. § 101 (tangible), because the ***system*** claim inserts one or more probes into a program. The insert operation is prior to the compilation of the computer program. The insert operation is an action which produces a tangible result.

11. (Currently Amended) An information processing system comprising: an input/output device for receiving a program to be analyzed, a set of probes to be inserted in the program, and probe semantics relating to the set of probes; a processor for inserting the probes; and memory for storing the information and the program to be analyzed, wherein the probe semantics are selected from the group consisting of: specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the r robe's guard swing, the probe's context hardness, and the probe's temporal hardness.

Claim 15 is presented below. The claim overcomes the rejection under 35 U.S.C. § 101 (tangible), because the ***medium*** claim inserts one or more probes into a program. The insert operation is prior to the compilation of the computer program. The insert operation is an action which produces a tangible result. And the medium is not defined to be a signal. Claim 15 is presented below.

15. (Currently Amended)A computer readable medium for analyzing the runtime behavior of a program given a set of one or more probes and points for inserting the probes for performing a specified inspection with minimal perturbation comprising instructions for: providing a compiler with one or more semantics about each probe the semantics selected from the group consisting of specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness; and compiling the program with the one or more probes and the semantics.

Applicant's Argument on Rejection under 35 U.S.C. §102

"The Office Action rejected claims 1-21 under 35 U.S.C. 102(e) as being anticipated by Morshed (US 5,721,941). The Applicant respectfully traverses the rejection and requests reconsideration in view of the amendment and the following remarks. Independent claims 1, 11, and 15 have been amended to recite the semantics about each probe as a Markush group. Morshed does not provide a selection from among the Markush group set forth and hence does not anticipate the claims. The dependent claims are not anticipated for at least the same reasons. Moreover, claim 12 is not anticipated by the admission in page 8 of the Office Action that Morshed does not teach a CDROM."

Examiner's Response

The argument that the invention is for selecting between specific types of probes is not part of the record is persuasive. In view of Zurko v Dickenson Official Notice and arguments based on basic knowledge or common sense which are not supported by evidence in the record lack substantial evidentiary support.

Applicant's Argument on Rejection under 35 U.S.C. § 112

"Claims 1-21 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully traverses this rejection. The patent statute requires that an applicant provide a disclosure sufficient to enable one skilled in the pertinent art to make and use the invention. The enablement requirement is applicable only to the claimed invention. Nothing in the patent law requires that a patentee disclose data on how to mass produce the invented product. Christianson v. Colt Industries Operating Corp., 822 F.2d 1544, 3 USPQ2d 1241 (Fed. Cir. 1987) (Colt was not required to include tolerances in his application, which made parts interchangeable). A patent specification is also not required to be production specification. In re Gay, 309 F.2d 769, USPQ 311 (CCPA 1962). Moreover, "[a] patent need not discuss what is well known in the art. In re Wands, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988); Spectra-Physics, Inc. v. Coherent, 827 F.2d 1524, 3 USPQ2d 1737 (Fed. Cir. 1987), invention does not require creating the probes. Rather, it requires providing a compiler with certain information including probes and semantics about the probes. The Office Action specifically finds that the terms "fast path probe," "guard swing" and "context hardness" are not enabled. The specification discusses an embodiment where different kinds of probes are inserted into a program. Given the disclosure those skilled in the art would know how to insert the different kinds of probes. For example, at page 15 the specification discusses how to insert a probe into byte code

In the case of "fast-path probe," the Examiner reads "stating of dynamic conditions" into the claim and then states that this is not enabled. The Examiner has not shown that one skilled in the art would not be able to insert a "fast-path probe" into the program. Therefore the claim must be considered enabled.

In the case of semantics relating to the "guard swing," paragraph [0033] specification discusses this type of probe. The Office Action does not show that those skilled in the art would not be enabled to insert these types of probes or to specify their semantics.

In the case of semantics relating to the "probe's context hardness," paragraph [0034] of the specification discusses this type of probe. The Office Action does not show that those skilled in the art would not be enabled to insert these types of probes or to specify their semantics."

Examiner's Response

The most persuasive arguments involve "invention does not require creating the probes. Rather, it requires providing a compiler with certain information including probes and semantics about the probes. The Office Action specifically finds that the terms "fast path probe," "guard swing" and "context hardness" are not enabled. The specification discusses an embodiment where different kinds of probes are inserted into a program. Given the disclosure those skilled in the art would know how to insert the different kinds of probes. For example, at page 15 the specification discusses how to insert a probe into byte code. " Coupled with the Applicant's statement one of ordinary skill in the art would know the different types of probes overcomes issues.

Independent Claims

The independent claims are presented below:

Claim 1

A method for analyzing the runtime behavior of a program given a set of one or more probes and points for inserting the probes for performing a specified inspection, the method comprising: providing a compiler with one or more semantics about each probe, the semantics selected from the group consisting of specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness; and compiling the program with the one or more probes and the semantics.

Claim 11

An information processing system comprising: an input/output device for receiving a program to be analyzed, a set of probes to be inserted in the program, and probe semantics relating to the set of probes; a processor for inserting the probes; and memory for storing the information and the program to be analyzed, wherein the probe semantics are selected from the group consisting of: specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness.

Claim 15

A computer readable medium for analyzing the runtime behavior of a program given a set of one or more probes and points for inserting the probes for performing a specified inspection with minimal perturbation comprising instructions for: providing a compiler with one or more semantics about each probe the semantics selected from the group consisting of specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness; and compiling the program with the one or more probes and the semantics.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The Abstract of the application has been amended as follows:

The Examiner has placed Applicant's Abstract on a separate sheet of paper as required.

ABSTRACT

Analyzing the runtime behavior of a program given a set of one or more probes and points for inserting the probes for performing a specified inspection, includes providing a compiler with one or more of the following types of information about each probe: specifying the probe's context, its filter criteria, whether it is a fast-path probe, whether it is a timing probe, the probe's guard swing, the probe's context hardness, and the probe's temporal hardness; and compiling the program with the one or more probes and the information.

Correspondence Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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